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# How do community pharmacists conceptualise and operationalise self-care support of long-term conditions (LTCs)? An English cross-sectional survey

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## **ABSTRACT**

### *Objectives*

To explore community pharmacists' contributions to self-care support of long-term conditions by; investigating their conceptual understanding of self-care principles; identifying self-care support activities they considered important and their engagement in them; and examining barriers and enablers.

### *Methods*

A questionnaire was developed using existing literature and qualitative interviews, piloted and distributed online to a random sample of 10,000 community pharmacists in England between August and November 2014. The questionnaire contained sections addressing the above objectives. Data were analysed using descriptive statistics; free text comments were analysed using content analysis.

### *Key findings*

A total of 609 responses were received; 334 completed all sections of the survey. Responses to statements exploring conceptual understanding showed that respondents were more likely to agree with self-care principles about patients taking responsibility and being more actively involved in their health and care; they agreed less with self-care principles promoting patient autonomy and independence. Respondents considered medicines-related self-care support activities as a lead role for community pharmacy, which they said they engaged in regularly. Whilst many agreed that other self-care support activities such as supporting self-monitoring and collaborative care planning were important, they indicated only limited engagement. Respondents identified access to patient records and availability of private consultation rooms as their main barriers and enablers respectively; working relationship with GPs and skill-mix in community pharmacy were viewed as both barriers and enablers.

### *Conclusions*

Community pharmacists in this study conceptualised and operationalised self-care support of LTCs from a narrow, medicines-focussed perspective, rather than from a multifaceted, patient-focussed perspective. A concerted and coherent strategy that builds on the strengths, and tackles the identified barriers is needed if community pharmacy is to improve contributions to self-care support of LTCs.

## **KEYWORDS**

Self-care, self-care support, long-term conditions, community pharmacists, cross-sectional survey

## INTRODUCTION

Long-term conditions (LTCs) like diabetes, cardiovascular diseases, respiratory diseases and cancers are recognised as the greatest challenge facing health systems in the 21<sup>st</sup> century.<sup>[1]</sup> This recognition has led key stakeholders including policymakers, healthcare professionals and researchers to rethink how healthcare resources are organised and delivered to address the current and future healthcare needs of people with LTCs.<sup>[2, 3]</sup> People living with LTCs, their self-care/self-management behaviours and their interaction with healthcare professionals are now a primary focus of interventions to improve the effectiveness and cost-effectiveness of healthcare services.<sup>[3]</sup> Self-care support (also self-management support) interventions have emerged as an inseparable component of high quality healthcare provision for patients with LTCs.<sup>[4]</sup> The concept of self-care support is built on the premise that if healthcare professionals can tap into patients' expertise and actively engage, involve and support them to participate in the care of their own health and wellbeing, this will lead to improvements in clinical, economic and humanistic outcomes.<sup>[5-8]</sup>

Community pharmacists are trusted healthcare professionals that have unique access to people with LTCs through dispensing and other activities which provide opportunities for self-care support. While the roles of healthcare professionals in providing self-care support of LTCs has been well-examined,<sup>[9-11]</sup> existing literature is dominated by evidence from medical and nursing, with limited evidence from community pharmacy. Self-care support is multifaceted, consisting of a wide range of activities that healthcare professionals should engage in to meet the needs of patients with LTCs. Research evidence has however shown that self-care support of LTCs by healthcare professionals is not yet embedded and integrated into routine primary care consultations and practice.<sup>[12-14]</sup> Furthermore, there is limited evidence of how healthcare professionals understand and engage in the wide range of activities and components of self-care support. For example, personalised care planning is considered an integral component of self-care support that healthcare professionals should engage in, but there is a need for more robust research into how this should be operationalised in real-life settings.<sup>[15]</sup>

A previous qualitative study that explored how community pharmacists conceptualised and operationalised self-care support of LTCs found that there is very limited understanding and practice of personalised care planning and other key components of self-care support of LTCs among community pharmacists.<sup>[16]</sup> The study showed that while pharmacists understand the theoretical basis of self-care as being patient-centred and multidimensional, the way they engaged in it reflected a narrow focus on providing medicines information and an opportunistic approach to providing support. Additionally, barriers relating to professional identity, contractual framework and lack of incentives were identified. The aim of this study was to further investigate and triangulate these key themes and concepts. The objectives were to quantitatively examine community pharmacists' :-conceptual understanding of self-care; prioritisation of self-care support activities; and perceptions of barriers and enablers to engaging in self-care support.

## METHODS

This study was an online cross-sectional survey that was conducted between August and November 2014. It received ethical approval from the University of Manchester Research Ethics Committee (ref: 14252). The study population was the estimated 26,600 community pharmacists registered in England.<sup>[17]</sup> The study sample was drawn from the population of community pharmacists registered in England who engaged with the Centre for Pharmacy Postgraduate Education (CPPE); the CPPE offers post-registration learning opportunities (continuing education) to pharmacists and pharmacy technicians practising in England. An online survey mode was favoured to postal mode because of the availability of, and access to, a comprehensive electronic database (emails) of community pharmacists, which provided a cost-effective and quick access to the large population of pharmacists spread across England. The online survey was designed and managed using the QUALTRICS<sup>(R)</sup> research suite software.

A formal sample size calculation was not possible because there was no data on the population distribution of the main variables of interest. However, using an assumption of an overestimated response distribution of 50%, a 5% margin of acceptable error and a 95% confidence interval in the true population, a sample size of 380 was estimated to provide sufficient responses to make valid comparisons in the true population.<sup>[18]</sup> Some survey studies have used a similar assumption to calculate to their sample size.<sup>[19]</sup> A study that used the CPPE database sampled 10,000 pharmacists and obtained a 7% response rate.<sup>[20]</sup> With the advice of a biostatistician, it was decided that this would be sufficient to generate the minimum responses of 380. A unique number was randomly generated for each pharmacist on the CPPE database and this was ordered in a table and the top 10,000 entries selected. Emails were sent from a CPPE email address to the selected participants inviting them to complete the survey. Two reminders were sent at 2-weekly intervals to encourage participation. The randomisation and emailing were undertaken by a research experienced CPPE technologist.

The survey questions were informed by the findings of previous qualitative interviews of community pharmacists<sup>[16]</sup> and the wider self-care support literature. A scoping review of the literature informed a theoretical framework of the core elements of self-care support of LTCs (Figure 1)<sup>[16, 21]</sup> and provided the structure for a key section of the survey. The five core elements in this framework were captured from policy documents and published literature where the overarching components from a wide range of self-care support programmes and interventions were extracted through a reflective and iterative process.<sup>[21]</sup> Collaborative care planning is at the heart of this framework to reflect its central relationship with the other components of self-care support; it provides the point of interaction between healthcare professionals and patients through which self-care support can be delivered more effectively<sup>[22]</sup>.

<Figure 1>

The survey questions underwent a number of iterations among members of the research team where the content, wording and structure were refined. The final draft of the survey was pre-piloted with two practising community pharmacists and two researchers who were independent of the research team.

The main sections of the survey were (Table 1); conceptual understanding of self-care of LTCs; self-care support activities in community pharmacy; barriers and enablers to providing self-care support; and participant demography.

#### <Table 1>

Survey responses were transferred from QUALTRICS into IBM SPSS™ (Version 20). Incomplete sections/questions were assigned as missing values and excluded from the analyses by pairwise deletion<sup>[23]</sup>, i.e. analyses were conducted only on cases that had complete data for the variable(s) being analysed. Data were analysed using descriptive statistics; findings are presented in tables using valid percent (excluding missing data). The mode is used as the measure of central tendency and is highlighted in the frequency table which also displays the spread of the responses to each statement/question. The total number of responses for each statement/question is also provided, although due to drop-out and non-completion of the survey by some respondents, there were differences in the number of responses presented in different sections of the analyses. Qualitative data generated from the free-text box under the barriers and enablers section were analysed by the directed approach to content analysis.<sup>[24]</sup>

## RESULTS

### ***Respondents' characteristics***

The overall response rate was 6.1% (n=609), although only 334 respondents completed all sections of the survey. Demographic data were available for 334 respondents; 69.5% (n=232) were females. The mean number of years of working in community pharmacy was 18years (SD=13years). 60.5% (n=202) of respondents worked in multiples (200 outlets or more), large chains (between 20 and 200 outlets) or supermarkets, while the remainder worked in independents (5 outlets or fewer) (n=109, 33%) or small chain pharmacies (between 6 - 20 outlets) (n=23, 6.9%).

### ***Conceptual understanding of self-care of LTCs***

A total of 419 respondents provided their levels of agreements with 10 statements on the principles of self-care and one statement on their overall understanding of the concept (Table 2). A pattern in how respondents conceptualised self-care of LTCs emerged; respondents were more likely to agree self-care principles related to patients being actively involved in their healthcare, adopting positive lifestyles, adhering to treatment and taking overall responsibility for their health and care. Whereas, respondents were less likely to agree with statements on self-care principles that promoted patient autonomy and that required patients to become more independent of healthcare professionals.

#### <Table 2>

## **Self-care support activities in community pharmacy**

The self-care support activities on the survey were mapped onto the theoretical framework of the five core elements of self-care support (Figure 1). Respondents' ratings of these self-care support activities are presented according to decreasing levels of importance, alongside ratings of whether they engaged in these activities in their last day of practice. The findings are presented in Table 3 below.

*<Table 3>*

### *Collaborative care planning*

The majority of respondents (63.2%) considered asking patients to talk about problems they had with their medicines as a 'lead role' for community pharmacy; most (29.2%) also said they engaged in this self-care support activity 'most of the time' on their last working day in community pharmacy. Between 38.4%-50.3% of respondents rated the other five activities relating to collaborative care planning as a 'major role' for community pharmacy. While 31.7% indicated they asked their patients about how their LTC affected their daily lives only 'little of the time' in practice, the majority of respondents (42.5%-52.7%) said they engaged in the remaining four activities in practice 'none of the time'.

### *Self-care information and advice*

More than two-thirds of respondents (68.6%) rated the provision of information and advice relating to taking medicines as a 'lead role' for pharmacy, and most (41.6%) also indicated that they did this 'most of the time' in practice. While 52.7%-58.8% of respondents rated the other five statements relating to the provision of healthy living as a 'major role', most of them indicated that they had only engaged in these in practice, 'some', 'little' or 'none of the time'.

### *Self-care support networks*

Nearly half of respondents (49.7%) considered signposting patients to local or national self-help groups as a 'major role' for community pharmacy but most (36.0%) indicated they engaged in this only 'little of the time' in their last day working in community pharmacy. The other two activities [relating to self-care support networks] involved a more proactive form of signposting; the majority of respondents (38.8%-43.2%) considered these 'minor roles' for community pharmacy, with most (52.7%-53.5%) also stating that they engaged in them 'none of the time' in practice.

### *Self-care skills training and support*

Five activities relating to self-care skills training and support included; helping patients in self-monitoring their LTCs; recognising and taking actions on LTCs signs and symptoms; recommending self-testing devices (e.g. blood pressure monitors) and interpreting the results; supporting patients to self-administer certain medicines (e.g. inhaler techniques). All five activities were considered a 'major role' by 47.7%-51.2% of respondents; most (27.2%-42.5%) indicated they engaged in these activities 'little' or 'none of the time'.

### *Self-care technology*

Two statements examined respondents' views on the use of technologies: informing patients about using mobile or internet-based applications ('apps') and communicating or interacting with patients through social media. Most respondents (46.8% and 44.1% respectively) rated these activities as a 'minor role' for community pharmacy and most also (74.5% and 72.8% respectively) indicated that they engaged in them 'none of the time' in practice.

## **Barriers and enablers**

Barriers and enablers to engaging in self-care support were selected by 339 respondents, of which 187 (55%) explained their reasons for selecting the barriers and 127 (37.5%) for enablers. Tables 4 and 5 respectively, show the five most selected barriers and enablers together with the analysis of respondents' explanations (subthemes) and exemplar quotes. 'Access to patient records' was the most commonly selected barrier (58.7%); 'availability of private consultation rooms' was the most commonly selected enabler (52.2%). 'Working relationship and communication with GPs' and 'skill mix and organisation of community pharmacy team' were mentioned as both barriers and enablers. Qualitative analysis of open comments suggest an interplay of other factors affecting individual community pharmacists' ability to engage in self-care support.

*<Table 4 and 5>*

## **DISCUSSION**

This study investigated how community pharmacists in England conceptualised the principles of self-care of LTCs and identified respondents' views of how important they perceived activities relating to self-care support of LTCs were in community pharmacy and whether they actively engaged in these activities in practice. Conceptually, community pharmacists in this study were more likely to agree with the broader patient-centred principles of self-care but less with the principles that required patients to become more independent and autonomous. The study also found that self-care support activities relating to helping patients to use their medicines were prioritised as most important when compared to all other self-care support activities in community pharmacy. Barriers and enablers to engaging in these self-care support activities were identified; respondents' explanations for identifying these barriers and enablers provided more insights into why they were considered important in community pharmacy.

The use of a theoretical framework to map the self-care support activities provided new insights into community pharmacists' approach to engaging in self-care support of LTCs. This framework was applied to a previous qualitative research<sup>[16]</sup> and its use in this study has helped to triangulate and elaborate on the qualitative findings, providing a more complete understanding. Furthermore, the findings from this study contributes to the wider literature on the conceptual understanding and practice of self-care support from a healthcare professional perspective. While the response rate and the non-completion of some sections of the survey could have introduced non-respondents' bias into the study, these are not uncommon with online survey research<sup>[25]</sup> with other studies reporting similar response rates.<sup>[20]</sup> However, a full pilot of the questionnaire could have identified potential flaws in the design and



dissemination of the survey which could have improved the response and completion rates. This study still involved a sufficiently large sample and participants' demographic characteristics were similar to the wider community pharmacists' characteristics.<sup>[26]</sup> However, community pharmacists on the CPPE database may not be representative of the true population as not all registered pharmacists that work in the community engage with CPPE.

A good understanding of the principles of patient-centred care and self-care support by healthcare professionals has been found to positively affect patient care.<sup>[27, 28]</sup> This study showed a pattern in respondents' conceptual understanding of the principles of self-care of LTCs which suggests that community pharmacists' approach to providing patient care may not be truly patient-centred. The theory and practice of patient-centeredness in the healthcare professionals-patient consultation has been strongly promoted by research and policy if the principles of self-care support in the management of LTCs is to be adopted in practice.<sup>[29]</sup> Paternalism which used to be the dominant model of consultation between healthcare professionals and patients is now viewed as detrimental to improving self-care and overall patient health.<sup>[30]</sup> Active and empowering partnerships between healthcare professionals and patients are a pre-requisite for patient-centred and quality healthcare.<sup>[31, 32]</sup> Despite the strong mantra in research and policy towards patient-centred consultation and interactions between healthcare professionals and patients to improve self-care,<sup>[33-36]</sup> studies have shown that many healthcare professionals, including community pharmacist and doctors are still paternalistic.<sup>[37-39]</sup>

Collaborative care planning activities such as action-planning, goal-setting and proactive follow-up are fundamental to the delivery of patient-centred self-care support,<sup>[22, 40]</sup> and can indeed lead to improved patients' capabilities to engage in self-care and better health outcomes.<sup>[41]</sup> However, while community pharmacists in this study considered these collaborative care planning activities as important, they said they only rarely implemented these in their daily practice. This strengthens the findings of the previous qualitative study which showed that collaborative care planning is not yet seen by pharmacists as part of community pharmacy practice in the management of LTCs.<sup>[16]</sup> For instance, goal-setting and proactive follow-up was not seen as a routine practice except when providing a service or intervention such as the stop smoking service and the new medicine service (NMS) that has a goal-setting and/or follow-up element built into it.<sup>[16]</sup> Recent studies have however provided evidence that pharmacists can routinely help patients with LTCs to set and achieve specific LTC goals if collaborative goal setting is incorporated into community pharmacy's routine strategy for managing LTCs.<sup>[42]</sup> Pharmaceutical care planning, a key stage in the chronic medication service (CMS) provided by community pharmacists in Scotland<sup>[43]</sup> has shown some promise and may be an important model to improve community pharmacy's involvement in collaborative care planning and ongoing patient care.

Self-care information and advice focuses on improving patients' knowledge and understanding about their LTCs and how to manage it via pharmacological, healthy lifestyle and psycho-emotional interventions.<sup>[4]</sup> This study however found that community pharmacists prioritised providing medicines-related information and advice over all other types of self-care information and advice. Provision of information and advice to help patients deal with the emotional aspects of their LTCs was least

prioritised in this study; previous studies suggested pharmacists' lack of confidence in supporting patients emotionally.<sup>[16]</sup> Assessment of patients' needs before and after providing information and advice is a pre-requisite to helping patients change behaviours,<sup>[8]</sup> this study however found that this was not implemented in practice despite the fact that it was viewed as important. It is well-established that providing patients with information and advice alone is insufficient to sustain behaviour change,<sup>[8, 44]</sup> and there is increasing evidence of the benefits of targeted behaviour change techniques in primary care consultations.<sup>[45]</sup> Despite that respondents in this study indicated that behaviour change technique should be a major role for community pharmacists, it was one of the least prioritised activity in routine practice. Similar findings have shown that GPs also do not prioritise the use of behaviour change techniques in routine practice.<sup>[13, 46]</sup>

Patients with LTCs often require support and training to develop disease-specific self-care skills such as self-monitoring<sup>[47]</sup> and symptom management,<sup>[48]</sup> but low levels of engagement in these activities by respondents were found in this study. Respondents however recognised the importance of these activities and many opportunities already present themselves in community pharmacy, for example, the supply of self-monitoring and self-testing devices to patients could be leveraged on to help in training and supporting patients to interpret test results and self-monitor their LTCs, and also get involved in action-planning, goals-setting and follow-up. Another example is in signposting, which as an essential service requires community pharmacists to inform and advise patients on self-help resources<sup>[49]</sup>. If utilised more proactively and engagingly, signposting presents a unique opportunity for pharmacists to act as a gatekeeper for the health service by minimising inappropriate use of health and social care services<sup>[49]</sup>. These opportunities may require targeted education and training of community pharmacists on the conceptual aspects of self-care support such as behavioural change counselling techniques, self-care skills training and support and collaborative care planning.

The barriers identified by community pharmacists in this study are well-recognised in the literature <sup>[50-52]</sup>, but this study provided some further insights on the importance of these barriers and explanations on why they were viewed as important. For example, access to patients' medical records was considered most important and community pharmacists felt they 'worked blindly' and relied on patients' perspectives to determine how to best engage in self-care support. Recent announcements of the rollout of community pharmacists' access to the summary care record of patients across the whole of England is an important step in overcoming this barrier.<sup>[53]</sup> Other barriers to providing self-care support should be addressed similarly by recognising and understanding how they are perceived by pharmacists and developing appropriate evidence-based interventions to tackle them. Despite these barriers, some studies have demonstrated that many aspects of self-care support of LTCs could be implemented in routine community pharmacy.<sup>[42, 54]</sup> This study showed that community pharmacists recognise the importance of providing many of the self-care support activities and this presents a unique opportunity for the profession to re-examine and develop a coherent strategy to address these barriers.

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**Figure 1: Core elements of self-care support of long-term conditions (LTCs)**



**Table 1: Main sections of the survey instrument**

Main sections	Description
<b>Conceptual understanding of self-care of LTCs</b>	<ul style="list-style-type: none"> <li>This section aimed to examine how respondents perceived the term 'self-care' as a concept in the care of LTCs.</li> <li>Using a 5-point Likert-type scale (strongly disagree to strongly agree), respondents were asked to rate their level of agreement with 10 statements relating to the principles of self-care and one statement on their overall understanding of self-care.</li> </ul>
<b>Self-care support activities in community pharmacy</b>	<ul style="list-style-type: none"> <li>This section aimed to understand the self-care support activities respondents think are important for them to be engaged in, and the current self-care support activities that they were already providing to patients with LTCs.</li> <li>Respondents were provided with 27 statements on activities relating to self-care support of LTCs and asked to indicate; <ul style="list-style-type: none"> <li>a. 'How important' each activity was to community pharmacy, by rating whether it was a 'lead', 'major' 'minor' or 'no role (i.e. role for other healthcare professionals)' and</li> <li>b. 'How much they had engaged' in each activity in their last day of working community pharmacy*, by rating whether they engaged in it 'none', 'a little' 'some', 'most' or 'all of the time'.</li> </ul> </li> <li>Each of the statement in this section map onto one of the five core elements of self-care support in the theoretical framework.</li> </ul>
<b>Barriers and enablers to providing self-care</b>	<ul style="list-style-type: none"> <li>This section aimed to identify what respondents perceived as the barriers and enablers to providing self-care support of LTCs in community pharmacy.</li> <li>Respondents were provided with a list of 15 factors and asked to select three main barriers and enablers to engaging in self-care support. A free text box was provided for respondents to provide some explanations for making their selections</li> <li>The factors were identified from the previous qualitative study of community pharmacists.</li> </ul>
<b>About you (Participant demography)</b>	<ul style="list-style-type: none"> <li>This section collected demographic data about participants relating to their age group, gender, job role, type of practice, years of practice in community pharmacy and additional qualifications.</li> </ul>
<p>*The last day of working in community pharmacy was used as a way to get respondents to think about an actual day in practice to provide a snapshot of how much self-care support activities are undertaken in the typical day for community pharmacists across a large, diverse area of practice.</p>	

**Table 2: Conceptual understanding of the principles of self-care of long-term conditions**

Statement*	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Total Responses
Self-care is about patients getting actively involved in consultations with their healthcare professional	0.2%	1.0%	6.0%	52.5%	40.3%	419
Self-care is about patients making informed decisions through improved knowledge and understanding	0.7%	1.0%	5.7%	47.3%	45.3%	419
Self-care is about patients making the necessary lifestyle changes to improve their health	1.2%	0.5%	6.7%	50.6%	41.1%	419
Self-care is about patients with LTCs developing the confidence to make desired changes	0.2%	2.6%	12.2%	53.2%	31.7%	419
Self-care is about patients adhering to their medications and treatment	0.7%	5.3%	14.3%	50.1%	29.6%	419
Self-care requires patients to take the lead role in their own care	0.7%	8.6%	18.6%	50.1%	22.0%	419
Self-care is about patients taking overall responsibility for managing their own condition(s)	1.7%	11.7%	15.5%	49.6%	21.5%	419
Self-care requires patients to tell healthcare professionals how to best support them in managing their LTCs	1.7%	10.3%	23.4%	44.2%	20.5%	419
<b>Overall, I have an excellent understanding of self-care as a concept in relation to patients with LTCs</b>	<b>1.0%</b>	<b>5.7%</b>	<b>34.8%</b>	<b>46.3%</b>	<b>12.2%</b>	<b>419</b>
Self-care is about patients becoming more independent of healthcare professionals	5.3%	34.6%	23.6%	29.1%	7.4%	419
Self-care requires patients to seek out the information they need to manage their LTCs on their own	11.2%	33.4%	23.6%	23.4%	8.4%	419
<i>*Respondents' rating of each statement has been reordered according to decreasing level of agreement.</i>						



**Table 3: Self-care support activities in community pharmacy**

	<b>Collaborative care planning</b>	<b>A) Importance of SCS activity in CP</b>					<b>B) Engagement in SCS activity in CP</b>					
#	<b>Statement</b>	<b>None</b>	<b>Minor</b>	<b>Major</b>	<b>Lead</b>	<b>Total</b>	<b>None</b>	<b>Little</b>	<b>Some</b>	<b>Most</b>	<b>Always</b>	<b>Total</b>
20	Ask your patients to talk about any problems they might have with their medicines or their effects	0.8%	1.6%	34.3%	63.2%	370	9.6%	23.2%	28.0%	29.2%	9.9%	353
19	Ask your patients how their LTCs affects their daily life	4.1%	18.6%	50.3%	27.0%	370	30.9%	31.7%	19.3%	14.7%	3.4%	353
21	Ask your patients for their preferences when making a plan for their LTCs care	15.0%	19.9%	42.0%	23.2%	367	52.4%	18.4%	14.4%	8.8%	5.9%	353
23	Help your patients to make plans to achieve their LTC care goals	13.6%	26.7%	41.1%	18.5%	367	52.7%	19.3%	17.6%	7.4%	3.1%	353
27	Coordinate patient care with the other healthcare professionals that your patient sees for their LTCs	15.9%	26.6%	41.1%	16.4%	365	42.5%	24.9%	19.3%	9.1%	4.2%	353
22	Help your patients to set specific goals to improve the management of their LTCs	13.4%	26.4%	38.4%	21.8%	367	50.4%	20.4%	15.3%	9.6%	4.2%	353
	<b>Self-care Information and Advice</b>											
#	<b>Statement</b>	<b>None</b>	<b>Minor</b>	<b>Major</b>	<b>Lead</b>	<b>Total</b>	<b>None</b>	<b>Little</b>	<b>Some</b>	<b>Most</b>	<b>Always</b>	<b>Total</b>
2	Provide patients with information and advice on: "Taking medications as recommended"	0.8%	0.3%	30.3%	68.6%	373	0.6%	8.2%	28.9%	41.6%	20.7%	353
6	Provide patients with information and advice on: "Stopping smoking"	1.1%	5.1%	58.8%	35.0%	374	22.1%	28.6%	25.5%	15.6%	8.2%	353
7	Provide patients with information and advice on: "Consuming alcohol healthily"	1.6%	18.4%	57.0%	23.0%	374	29.7%	27.5%	23.2%	13.0%	6.5%	353
5	Provide patients with information and advice on: "Maintaining a healthy weight"	2.1%	20.9%	56.1%	20.9%	374	20.1%	30.3%	27.5%	16.4%	5.7%	353
3	Provide patients with information and advice on: "Eating healthily"	1.3%	22.5%	55.0%	21.2%	373	16.4%	27.2%	31.2%	17.8%	7.4%	353
4	Provide patients with information and advice on: "Being physically active"	2.7%	24.3%	52.7%	20.3%	374	17.3%	29.2%	28.6%	16.7%	8.2%	353
1	Make an assessment of a patient's needs before providing information and advice	7.8%	23.3%	53.6%	15.3%	360	15.0%	25.8%	28.9%	21.8%	8.5%	353
9	Make an assessment of a patient's needs after providing information and advice	13.4%	30.4%	39.8%	16.4%	359	27.5%	25.8%	24.9%	16.7%	5.1%	353
10	Utilise a behaviour change technique (e.g. health coaching or motivational interviewing) to help patients change behaviours	22.8%	31.5%	33.4%	12.2%	368	47.3%	22.1%	16.1%	10.5%	4.0%	353
8	Provide patients with information and advice on: "Dealing with the emotional needs associated with living with a LTC"	22.6%	41.5%	27.0%	8.9%	371	40.2%	25.8%	22.1%	8.5%	3.4%	353
	<b>Self-care Support Networks</b>											
#	<b>Statement</b>	<b>None</b>	<b>Minor</b>	<b>Major</b>	<b>Lead</b>	<b>Total</b>	<b>None</b>	<b>Little</b>	<b>Some</b>	<b>Most</b>	<b>Always</b>	<b>Total</b>

18	Signpost patients to local or national self-help groups	1.9%	14.0%	49.7%	34.4%	372	31.4%	36.0%	17.8%	9.3%	5.4%	353
24	Help your patients make plans for how to get support from their friends, family or community	16.3%	38.8%	34.4%	10.6%	369	53.5%	22.7%	13.3%	8.2%	2.3%	353
25	Encourage your patients to go to a specific group or class to help them cope with their LTCs	14.3%	43.2%	31.4%	11.1%	370	52.7%	25.5%	11.6%	7.9%	2.3%	353
	<b>Self-care Skills Training and Support</b>											
14	Help patients to interpret the results from their self-testing devices	3.2%	14.7%	51.6%	30.5%	374	42.5%	24.4%	17.3%	11.0%	4.8%	353
15	Provide support to patients to self-administer certain medicines (e.g. insulin injection, inhaler technique)	4.3%	10.2%	48.2%	37.2%	371	27.2%	26.9%	26.1%	13.3%	6.5%	353
12	Advise patients to know how to act on the deteriorating signs and symptoms of their LTCs	5.6%	13.1%	49.3%	31.9%	373	21.8%	28.0%	25.5%	17.8%	6.8%	353
11	Advise patients to know how to recognise deteriorating signs and symptoms of their LTCs	4.8%	13.7%	48.7%	32.8%	372	21.2%	30.9%	22.7%	19.3%	5.9%	353
13	Recommend and/or supply self-testing devices (e.g. blood pressure monitors)	3.5%	19.7%	47.7%	29.1%	371	39.4%	29.2%	17.0%	9.1%	5.4%	353
	<b>Self-care Technology</b>											
17	Inform patients about the use of mobile or internet-based applications ('apps')	16.3%	46.8%	28.3%	8.6%	325	74.5%	12.5%	6.8%	4.5%	1.7%	353
16	Communicate or interact with patients through web-based social media and instant messaging applications	22.7%	44.1%	26.5%	6.7%	313	72.8%	13.6%	5.4%	6.2%	2.0%	353

**Table 4: Barriers to providing self-care support of long-term conditions (n=339)**

Main Barriers	Sub-themes	Exemplar quote
<b>Access to patient medical records (n=199, 58.7%)</b>	'Working blindly' limits support provided	"Not able to access full medical records from GP/hospital limits the condition being treated known to me and hence limits any relevant information/advice that can be passed onto the patient." ID86
	Relying on patients for medical information	"when I speak to a patient, I am relying on them to tell me test results etc, and I am then giving them advice based on their perception of good/bad results." ID15
<b>Remuneration for providing support of LTCs (n=122, 36.0%)</b>	'Fee-per-service' focus	"My employer will not support me in any patient service without payment for the service provided." ID102
	Poor remuneration leads to low staffing levels	Remuneration is important to employ more staff so quality time can be spent with patient" ID09
<b>Working relationship and communication with GPs (n=113, 33.3%)</b>	Lack of support from GPs	"not enough support from GPs and other health professionals in promoting the use of pharmacy in providing this kind of support which creates a barrier with a lot of patients who don't think i have the right or the training to discuss these things with them."ID27
	Limited direct access and communication with GPs	"Lack of communication from GPs - the response is always communicated back via a receptionist, often not resolved in the first instance" ID107
<b>Current community pharmacy contractual arrangement (n=108, 31.9%)</b>	Priority accorded to dispensing-related activities	"With most time spent in supervision (and checking) there is little time available for providing unpaid support-other than through MUR and NMS services." ID12
	Target-focussed contract impedes talking time with patients	"The community setting is based largely on meeting and exceeding targets on the number of MURs, NMS and the waiting times for walk in prescriptions. This limits the amount of time you can spend with each patient." ID52
<b>Skill mix and organisation of community pharmacy team (n=95, 28.0%)</b>	Inadequate staffing levels	"We are struggling to provide even the most basic service due to lack of staff. This is not only our employers fault but all pharmacy organisations who could influence staffing levels . We are tied to the dispensing process and the counter. We are fighting to survive each day." ID22
	Lack of support from employers	"Some employers run on minimal staff meaning pharmacist works with minimal support so doesn't have time to spare for long consultations." ID60

**Table 5: Enablers to providing self-care support of long-term conditions (n=339)**

Main Enablers	Sub-themes	Exemplar quote
<b>Availability of private consultation rooms (n=177, 52.2%)</b>	Ensuring confidentiality and privacy	"The consultation room provides a comfortable, private location away from the distractions of the shop floor. It allows me to focus on the patient's needs." ID52
	Engaging patients to talk	"Having somewhere private to talk to a patient makes them more willing to discuss their medical conditions." ID97
<b>Patients' accessibility to community pharmacists/pharmacy (n=134, 39.5%)</b>	Community pharmacy provides improved access to healthcare	"Most areas have a community pharmacy (statistically, deprived areas have more access to community pharmacies and also have a larger proportion of their population with a LTC), many people come to us their pharmacist for advice as GPs are so hard to see these days" ID11
	Patients trust in community pharmacy	The majority of patients with LTCs visit the pharmacy on a regular basis and trust the advice given by the pharmacist. They find us more approachable than GPs." ID31
<b>Working relationship and communication with GPs (n=108, 31.9%)</b>	Mutual understanding and respect	"Being trusted by the GPs to act professionally and work in conjunction with their processes and advice is a major enabler especially where the patients are aware of this collaborative approach to their care and health outcomes" ID33
	Time and diplomacy required to build relationships	"Having good relationships with local GPs takes a long time ...You have to earn their respect and prove your expertise in medicines. it also requires diplomacy ...." ID04
<b>Skill mix and organisation of community pharmacy team (n=93, 27.4%)</b>	Good team working	"Skill mix is the essential factor with all the team being focused on patient care and positive outcomes for the patient ...health care champions and counter staff are often the first point of contact and are known and trusted by patients and the public...It is not just the pharmacist." ID100
	Trained and trusted staff improves efficiency	"I would have to make sure my staff are suitably trained to be able to take on more responsibility in the dispensary, so that the work flow and efficiency of the walk-in business did not suffer." ID123
<b>Access to educational resources and training for supporting LTCs (n=89, 26.3%)</b>	Some employers provide support	"Employers provide training materials and encourage support of LTC" ID10
	Training needed to support behaviour change	...we could always do with more training on how to motivate patients to change" ID13